

08-1995 R - Tahuya River Habitat Restoration

PROJECT PROPOSAL – RESTORATION AND ACQUISITION PROJECTS

INSTRUCTIONS: Salmon Recovery Funding Board applicants must respond to the following items. Please respond to each question individually. Local citizen and technical advisory groups will use this information to evaluate your project. Contact your lead entity for additional information that may be required. Limit your response to eight pages.

Submit information via the PRISM attachment process. Application checklists and attachment forms may be downloaded off the SRFB Web site at <http://www.rco.wa.gov/srfb/docs.htm>.

NOTE: Acquisition, Combination, and Diversions and Screening projects have supplemental questions embedded within this worksheet. Please answer the questions below and all pertinent supplemental questions.

PROJECT OVERVIEW

Explain your project overall and include the following elements:

- a) *List your primary project objectives, such as how this project will improve or maintain habitat conditions and habitat forming processes.*

The primary project objectives following the placement of **Engineered Log Jams** is to increase channel complexity; provide cover; capture sediment; reduce erosion; create pools, and restore the stream channel scoured by the historic high water event of December 2007.

Secondary objectives are education and the prevention of point source pollution in the form of sewage flowing into the stream during high water events. Point source pollution is a leading cause of nitrogen flowing into Hood Canal and overall fecal chloroform presence.

- b) *State the nature, source, and extent of the problem that the project will address, including the primary causes of the problem, not just the symptoms. Explain how achieving the project objectives will help solve the problem. (Diversions and Screening projects should refer to the supplemental questions later in this worksheet for further guidance on information to include in their problem statement.)*

In December 2007 a historic flood washed out the county road bridge over the Little Tahuya River, sweeping aside natural LWD formations and greatly reducing stream meander through channelization for approximately 800 feet of stream below the bridge. Bank armoring by the county to protect the paved high value access road exacerbated the problem. The county will not allow natural stream functions by removing the bank armoring therefore the placement of *Engineered Log Jams* is essential to restore natural habitat functions along the length of the project site. This is a straight forward critical habitat restoration project.

- c) *Describe the fish resources (species and life history stages present, unique populations), the habitat conditions, and other current and historic factors important to understanding this project. Be specific-avoid general statements.*

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The Little Tahuya River offers 2.2 miles of Coho and Trout habitat before it empties into the 21.1 mile long Tahuya River at RM 7.4. The entire Tahuya drainage offers 80.3 miles of exceptional fish habitat. Species at risk include: ESA listed Summer Chum and Steelhead, also Chinook; Coho and Fall Chum.

- d) *Discuss how this project fits within your regional recovery plan or local lead entity strategy (i.e., does the project address a priority action, occur in a priority area, or target priority fish species?).*

In accordance with the Lead Entity “Salmon Habitat Recovery Strategy” the project occurs in Domain 1 – (Natal freshwater and sub-estuarine habitats for 7 extant summer chum subpopulations, 2 extant chinook populations, and 1 extant bull trout subpopulation); and is considered a Priority 1 stream reach from the estuary of the Tahuya River to the junction of the Little Tahuya River at RM 7.4 at which time the Little Tahuya is classified as a Priority 2 stream.

Additional guidance was obtained from:

1. Washington Conservation Commission Limiting Factors Analysis (2004)
2. Hood Canal Summer Chum Conservation Initiative
3. Washington Conservation Commission Strategic Plan.

2) PROJECT DESIGN

- a) *Describe the location of the project in the watershed (nearshore, estuary, main stem, tributary, off channel, etc.).*

The project is located on the main stem of the Little Tahuya River just above the junction with the Tahuya River at RM 7.4.

- b) *Describe the project design and how it will be implemented. Describe the extent of the project. Describe specific restoration methods and design elements you plan to employ. If restoration will occur in phases, explain individual sequencing steps, and which of these steps is included in this application. (Acquisition-only projects need not respond to this question.)*

The project will install a number of anchored, engineered log jams in accordance with the latest best design practices as has been determined by the Mason Conservation District engineer. Minimal stream bed disturbance and restructuring will occur as the engineered log jams will provide natural hydraulic actions to establish the stream bed morphology.

- c) *Describe the scale and size of the project, and its proximity to protected, functioning, or restored habitats. (Diversions and screening only projects [i.e., not a combination] need not respond to this question.)*

Not applicable

- d) *Describe the salmonid species and life cycle stage(s) that are targeted to benefit by this project.*

The targeted salmonid species include: ESA listed Summer Chum and Steelhead, also Chinook; Coho and Fall Chum in all fresh water phases of their life cycle..

- e) *Describe the long-term stewardship and maintenance obligations for the project or acquired land. For acquisition and combination projects, identify any planned use of the property, including upland areas.*

Engineered log jams have a reasonably long life when properly engineered and

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anchored therefore little stewardship responsibilities are envisioned.

The Tahuya River and Little Tahuya River are composed of predominately private land ownership that is adjacent to WDFW owned property. The private landowners are committed to the project and are participating in the WDFW Landowner Incentive Program. The WDFW, in addition to being a contiguous landowner, has maintained a long standing presence in the area through extensive salmon monitoring on the Tahuya and Little Tahuya River systems.

We are depending on the enlightened self interest of the motivated, adjacent landowners to properly maintain the existing stream bank. Bank erosion and sedimentation control and effectiveness are assured by the landowners adjacent to the river. Flooded during the December 2007 storm, they appreciate the importance of a stabilized and properly functioning stream bank and understand their responsibilities regarding the care of the stream bank vegetation. . Moreover, the HCSEG's routine monitoring of the stream reach will assure long-term oversight of stewardship functions.

3) PROJECT DEVELOPMENT

a) *List the individuals and methods used to identify the project and its location.*

Partner	Point of Contact
Hood Canal Coordinating Council (HCCC)	Mr. Richard Brocksmith – Fish Biologist
Washington Department of Fish & Wildlife (WDFW)	Mr. Bob Barnard – Lead Habitat Engineer Ms. Margie Schirato – Lead Habitat Biologist
Mason Conservation District (Engineering/Design)	Mr. Richard J. Geiger – Professional Engineer
Hood Canal Salmon Enhancement Group	Mr. Neil W. Werner – Executive Director
US Fish and Wildlife (Landowner Incentive Program [LIP])	Ms. Ginna Correa – WDFW Program Coordinator
Land Owners	WDFW
Land Owners	Leroy and Laurel Dailey, 3537 Belfair - Tahuya Rd
Land Owners	Anne and Joseph Garcia, 3535 Belfair - Tahuya Rd.
Land Owners	Harold Costa, 3531 Belfair - Tahuya Rd

b) *Explain how the project's cost estimates were determined.*

On site survey's, an engineered plan and experience with more than twenty such projects resulted in the reasonable and competitive cost estimates used. The only major concern and resulting determination was that of the increasing high cost of fuel. While the project is not completely dependent on machinery there is some mobilization and mechanical assistance required. Those sections of the cost estimate with machinery requirements were adjusted by as much as 10% due to fuel cost increases.

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- c) *Describe other approaches, opportunities, and design alternatives that were considered to achieve the project's objectives.*

Do nothing, although an alternative does not meet the objectives of salmonid protection and restoration and was therefore rejected.

Engineered log jams and the placement of LWD is recognized as a "best practice" to increase channel complexity; provide cover; capture sediment; reduce erosion; create pools, and restore the stream channel.

Best Practice, cost effective criteria resulted in no further concept or alternative investigation beyond that designed and budgeted.

- d) *Describe the consequences of not conducting this project at this time. Consider the current level and imminence of risk to habitat in your discussion.*

Referring to the attached pictures in PRISM you will note that the existing stream bed is scoured of all LWD in the channel and at the same time the water is clear / pristine. The absence of LWD to provide cover and develop pools will lead to high incidents of predation of juveniles and the warming of the water. Both circumstances further stress this high priority salmonid habitat.

- e) *Describe any concerns about the project raised from the community, recreational user groups, or adjacent land owners, and how you addressed them.*

The adjacent land owners, after several years of contact and education by the HCSEG, are highly motivated to see the project go forward. As the adjacent land is owned in its entirety by the WDFW and the four (4) supportive landowners there will be no concerns by the general public about this project.

- f) *Include a Partner Contribution Form, when required, from each partner outlining its role and contribution to the project. This form may be downloaded off the SRFB Web site. State agencies are required to have a local partner that is independently eligible to be a project sponsor. A Partner Contribution Form is also required from partners providing third-party match.*

Project Partner Contribution Form(s) Attached

- g) *List all landowner names. Include a signed Landowner Acknowledgement Form (available on the SRFB Web site) from each landowner acknowledging their property is proposed for SRFB funding consideration. If a restoration project covers a large area and encompasses numerous properties, Landowner Acknowledgement Forms are not required. For sponsors proposing work on their own property, this form is not required. For multi-site acquisition projects involving a relatively large group of landowners, include, at a minimum, signed Landowner Acknowledgement Forms for all known priority parcels.*

Land Owners	WDFW
Land Owners	Leroy and Laurel Dailey, 3537 Belfair - Tahuya Rd
Land Owners	Anne and Joseph Garcia, 3535 Belfair - Tahuya Rd.
Land Owners	Harold Costa, 3531 Belfair - Tahuya Rd

Land Owner Acknowledgement Forms Attached

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b) List the names, qualifications, roles, and responsibilities for all known staff, consultants, and subcontractors who will be implementing the project. If unknown, describe the selection process.

- i) **Neil W. Werner – Project Manager**; Executive Director Hood Canal Salmon Enhancement Group.
- ii) **Kim Gower - Office Manager** responsible for general administrative business operations.
- iii) **Mona Pillars – Office Accountant** and Administrative Assistant responsible for the day to day functions of financial accounting; researches information for projects, grants and legislative policies.
- iv) **Rich Geiger - Mason Conservation District Engineer**
- v) **Construction Contractor(s)** – The contractor will be selected following the best and final proposal submitted from a list of qualified (responsive & responsible) contractors maintained and updated annually by the HCSEG in accordance with standard policy and procedures.

4) TASKS AND SCHEDULE

a) List and describe the major tasks and time schedule you will use to complete the project. Describe your experience managing this type of project.

The Hood Canal Salmon Enhancement Group has completed more than 20 similar in-stream habitat and stream bank restoration projects in the recent past. All completed on time and on budget. We have developed the experience through lessons learned coupled with long-term relationships with our list of prime and sub contractors to ensure a maximum reduction of risk associated with schedule, cost or quality of this project.

The major tasks include:

- 1. Landowner Agreements - Obtained
- 2. Engineering - Obtained
- 3. Permits – Obtained
- 4. Funding – In Work
- 5. Mobilization – Funding + two (2) weeks \pm 2 days
- 6. Stream Channel Definition – Mobilization + two (2) days
- 7. Engineered Log Jam Placement – Mobilization + fourteen(14) days
- 8. Planting Native Species – Engineered Log Jam Placement + two (2) days
- 9. Demobilization – Planting + one (1) day
- 10. Monitor - Ongoing

5) CONSTRAINTS AND UNCERTAINTIES

Each project should include an adaptive management approach that provides for contingency planning. State any constraints, uncertainties, possible problems, delays, or unanticipated expenses that may hinder completion of the project. Explain how you will address these issues as they arise and their likely impact on the project.

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Access to the stream bed and bank are assured by agreements in place. Work will be accomplished during **low water** in accordance with standard procedures and best engineering practices. **Cost** will be assured as the **best value** due to **competitive bidding** procedures.

Quality will be assured by adherence to the **approved engineering design** and direct project management **oversight**.

Uncertainties include unknown economic factors (price of fuel) however the HCSEG is prepared to augment fuel price increases over the planning factors used to develop the firm fixed price construction contract.

Schedule is an uncertainty as weather impacts on the ground construction. However, normal low water exists for an extended period generally offering ample opportunity for historical norms during the construction and planting season. There is an unlikely chance the project will have to be delayed for as much as six months if weather becomes a factor. In that case we will wait for the next favorable construction “window”. We anticipate funding partners will allow this kind of slippage should the need arise.

Supplemental Questions

- 6) *PROJECTS INVOLVING ACQUISITIONS (Applies to both Acquisition-only and Combination Projects)– Answer the following questions – **Not Required***
- 7) *DIVERSIONS AND SCREENING PROJECTS -- Answer the following questions: **Not Required***